

WHAT IS CLAIMED IS:

1. A vehicle lamp comprising:
  - a first light emitting diode that is arranged at a first location and that emits light in a first area;
  - 5 a second light emitting diode that is arranged at a second location different from the first location and that emits light in a second area;
  - a lamp lens having a light emission area;
  - a plurality of first reflection surfaces that reflect the light emitted
  - 10 by the first light emitting diode toward the lamp lens; and
  - a plurality of second reflection surfaces that reflect light emitted by the second light emitting diode toward the lamp lens, wherein
  - the first reflection surfaces and the second reflection surfaces are alternately provided over almost entire of the light emission area of
  - 15 the lamp lens,
  - the first reflection surfaces are arranged almost in the first area,
  - the second reflection surfaces are arranged almost in the second area,
  - each of the first reflection surface is a part of a rotational
  - 20 paraboloid having a focus on a light emission source of the first light emitting diode such that the paraboloids corresponding to the first reflection surfaces that are farther from the first light emitting diode have longer focal lengths, and
  - each of the second reflection surface is a part of a rotational
  - 25 paraboloid having a focus on a light emission source of the second light

emitting diode such that the paraboloids corresponding to the second reflection surfaces that are farther from the second light emitting diode have longer focal lengths.

5 2. The vehicle lamp according to claim 1, further comprising:

a plurality of first linear Fresnel prism elements arranged between the first light emitting diode and the first reflection surfaces; and

a plurality of second linear Fresnel prism elements arranged  
10 between the second light emitting diode and the second reflection surfaces, wherein

the first linear Fresnel prism elements transmit the light emitted by the first light emitting diode almost as it progress in a cross section that includes the first light emitting diode and the first reflection  
15 surfaces, and refract and transmit the light emitted by the first light emitting diode as almost parallel light in a cross section orthogonal to a light reflection direction of the first reflection surfaces, and

the second linear Fresnel prism elements transmit the light emitted by the second light emitting diode almost as it progress in a  
20 cross section that includes the second light emitting diode and the second reflection surfaces, and refract and transmit the light from the second light emitting diode as almost parallel light in a cross section orthogonal to a light reflection direction of the second reflection surfaces.

3. The vehicle lamp according to claim 1, wherein the lamp lens includes

an outer lens; and

an inner lens, wherein

5 a plurality of at least one of concave portions and convex portions are provided, in portions of the inner lens almost

corresponding to ranges in which reflected lights from the first reflection surfaces are incident, respectively, in such a manner that the concave portions recess on an opposite side to a first reflection surfaces-side

10 and the convex portions project on the first reflection surfaces-side, and

a plurality of at least one of concave portions and convex portions are provided, in portions of the inner lens almost

corresponding to ranges in which reflected lights from the second reflection surfaces are incident, respectively, in such a manner that the

15 convex portions project on a second reflection surfaces-side and the concave portions recess on an opposite side to the second reflection surfaces-side, and

the concave portions and the convex portions of the inner lens are alternately provided in the light emission area of the lamp lens almost over the entire light emission area to correspond to the first reflection surfaces and the second reflection surfaces, respectively.

4. The vehicle lamp according to claim 1, wherein the lamp lens includes

25 an outer lens; and

an inner lens, wherein

a plurality of at least one of concave portions and convex portions are provided, in portions of the inner lens almost corresponding to ranges in which reflected lights from the first reflection surfaces are incident, respectively, in such a manner that the concave portions recess on an opposite side to a first reflection surfaces-side and the convex portions project on the first reflection surfaces-side, and

a plurality of at least one of concave portions and convex portions are provided, in portions of the inner lens almost corresponding to ranges in which reflected lights from the second reflection surfaces are incident, respectively, in such a manner that the convex portions project on a second reflection surfaces-side and the concave portions recess on an opposite side to the second reflection surfaces-side, and

the concave portions and the convex portions of the inner lens are alternately provided in the light emission area of the lamp lens almost over the entire light emission area to correspond to the first reflection surfaces and the second reflection surfaces, respectively; and

a plurality of light diffusion prism elements arranged on any of an outer surface and an inner surface of any one or more of the convex portions and the concave portions of the inner lens.

5. The vehicle lamp according to claim 1, wherein a plurality of the first light emitting diodes and the second light emitting diodes are provided, and

one the first light emitting diode, one the one second light emitting diode, the first reflection surfaces, and the second reflection surfaces are integrated into an arrangement, so that there are a plurality of the arrangements, wherein

5 each of the arrangement is positioned at a different location in a light reflection direction of the first reflection surfaces and the second reflection surfaces.

6. The vehicle lamp according to claim 1, wherein  
10 a 0° axis of the first light emitting diode is inclined toward a first reflection surfaces-side relative to an optical axis of the first reflection surfaces, and

a 0° axis of the second light emitting diode is inclined toward the second reflection surfaces-side relative to an optical axis of the second  
15 reflection surfaces.

7. The vehicle lamp according to claim 1, wherein  
an optical axis direction of the first reflection surfaces differs from an optical axis direction of the second reflection surfaces.

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8. The vehicle lamp according to claim 1, wherein  
each of the first reflection surfaces and each of the second reflection surfaces is divided into a plurality of reflection surfaces.

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9. A vehicle lamp comprising:  
a light emitting diode that emits light;  
a lamp lens having a light emission area;  
a plurality of reflection surfaces that reflect the lights emitted by  
5 the light emitting diode; and  
a plurality of mirror finished surfaces that do not function to  
reflect the light emitted by the light emitting diode but function to reflect  
an outside light incident from the lamp lens, wherein  
the reflection surfaces and the mirror finished surfaces are  
10 alternately provided over almost entire of the light emission area,  
the reflection surfaces are arranged almost within a range of an  
illumination angle of the light emitted by the light emitting diode,  
each of the reflection surface is a part of a rotational paraboloid  
having a focus on a light emission source of the light emitting diode  
15 such that the paraboloids corresponding to the reflection surfaces that  
are farther from the light emitting diode have longer focal lengths, and  
each of the mirror finished surfaces is arranged on a segment  
that connects the light emission source of the light emitting diode to one  
of boundaries between the reflection surfaces and the mirror finished  
20 surfaces, or arranged on an opposite side to a light reflection direction  
of the reflection surfaces from the segment.

10. The vehicle lamp according to claim 9, further comprising a  
plurality of linear Fresnel prism elements arranged between the light  
25 emitting diode and the reflection surfaces, wherein

the linear Fresnel prism elements transmit the light emitted by the light emitting diode almost as it progress in a cross section that includes the reflection surfaces, the mirror finished surfaces, and the light emitting diode, and refract and transmit the light emitted by the light emitting diode as almost parallel lights in a cross section orthogonal to the light reflection direction of the reflection surfaces.

11. The vehicle lamp according to claim 9, wherein the lamp lens includes

10 an outer lens; and

an inner lens, wherein a plurality of at least one of concave portions and convex portions are provided, in portions of the inner lens almost corresponding to ranges in which reflected lights from the reflection surfaces are incident, respectively, in such a manner that the

15 concave portions recess on an opposite side to a reflection surfaces-side and the convex portions project on the reflection surfaces-side.

12. The vehicle lamp according to claim 9, wherein the lamp lens

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an outer lens;

an inner lens, wherein a plurality of at least one of concave portions and convex portions are provided, in portions of the inner lens almost corresponding to ranges in which reflected lights from the

25 reflection surfaces are incident, respectively, in such a manner that the

concave portions recess on an opposite side to a reflection surfaces-side and the convex portions project on the reflection surfaces-side; and

5 a plurality of light diffusion prism elements arranged on at least one of outer surfaces and inner surfaces of at least either the convex portions or the concave portions of the inner lens.

13. The vehicle lamp according to claim 9, wherein a plurality of the light emitting diodes are provided, wherein

10 one the light emitting diode, the reflection surfaces are integrated into an arrangement, so that there are a plurality of the arrangements, wherein

each of the arrangement is positioned at a different location in a light reflection direction of the reflection surfaces.

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14. The vehicle lamp according to claim 9, wherein

a 0° axis of the light emitting diode is inclined toward a reflection surfaces-side relative to an optical axis of the reflection surfaces.

20 15. The vehicle lamp according to claim 9, wherein the reflection surfaces have different optical axis directions.

16. The vehicle lamp according to claim 9, wherein each of the reflection surfaces is divided into a plurality of

25 reflection surfaces.



17. The vehicle lamp according to claim 9, wherein each of the mirror finished surfaces is divided into a plurality of zigzag surfaces.